

PATENT
Attorney Docket No. UCSD-07982

AMENDMENTS TO THE CLAIMS

1-44. (canceled)

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45. (previously presented) A method for identifying a candidate agent as a compound that modulates centromere-associated protein E (CENP-E) activity, said method comprising the steps of:

- (i) providing a substantially purified biologically active CENP-E, wherein said biologically active CENP-E has plus end-directed microtubule motor activity and comprises an amino acid sequence having at least 80% sequence identity with amino acids 1-324 of SEQ ID NO:1;
- (ii) determining CENP-E activity of said substantially purified CENP-E in the presence of a candidate agent at a control concentration, wherein the CENP-E activity comprises at least one activity selected from the group consisting of plus end-directed microtubule motor activity, ATPase activity, and microtubule binding activity; and
- (iii) determining said CENP-E activity in the presence of the candidate agent at a test concentration, wherein a change in activity between the test concentration and the control concentration of said candidate agent indicates the identification of a compound that modulates CENP-E activity.

46. (previously presented) A method of claim 45, wherein said CENP-E is a recombinant protein.

47. (previously presented) A method of claim 45, wherein the biologically active CENP-E is *Xenopus* CENP-E (XCENP-E).

48. (previously presented) A method of claim 45, wherein the biologically active CENP-E comprises a motor domain of *Xenopus* CENP-E (XCENP-E) set forth as amino acids 1-324 of SEQ NO:1.

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49. (previously presented) A method of claim 45, wherein the biologically active CENP-E comprises *Xenopus* CENP-E (XCENP-E) set forth as SEQ ID NO:1.

50. (previously presented) A method of claim 45, wherein said activity is plus end-directed microtubule motor activity.

51. (previously presented) A method of claim 45, wherein said change in activity is a decrease.

52. (previously presented) A method of claim 45, wherein said change in activity is an increase.

53. (previously presented) A method of claim 45, wherein said compound is an antibody.

54. (previously presented) A method of claim 45, wherein said method is performed in a plurality and wherein said plurality of methods are performed simultaneously.